

he advent of the U.S. Environmental Protection Agency's Superfund Program in 1980 marked a historical turning point for the U.S. Army Corps of Engineers. The EPA turned to the Corps to provide design and construction oversight of hazardous waste cleanups under the Superfund Program. Knowing that this was no small task, Headquarters USACE asked Corps divisions to submit proposals to determine what division would be best suited for this nationwide program. HQ USACE chose the Missouri River Division to be the Superfund Design Center which included Omaha and

Kansas City districts as the lead districts for design, while geographic districts performed construction oversight.

With the passage of the 1986 Superfund Law, DoD formalized the Defense Environmental Restoration Program (DERP) for active installations as well as Formerly Used Defense Sites (FUDS). Over the next four years, the Superfund and DERP missions grew large enough that HQ USACE decided to decentralize the design function for DERP and Superfund. It was at this time HQ USACE made a decision that a centralized technical quality assurance (QA) function would be created using Missouri River Division staff, hence laying the foundation for the Center of Expertise (CX). The CX was formally established in two steps. In 1991, the center was designated as the Radioactive and Mixed Waste CX. Then a year later, the name changed to the Hazardous, Toxic and Radioactive Waste (HTRW) CX.



Courtesy photo

A packaging team conducts a survey prior to a removal action for chemical agent identification sets at Fort Benning, Ga.

This remained the center's official name until Nov. 11, 2007, when it combined with the U.S. Army Engineering and Support Center, Huntsville's, Military Munitions CX to form the Environmental and Munitions Center of Expertise (EM CX) with combined expertise in environmental, radioactive, munitions, and munitions constituents remediation, response and compliance.

The EM CX is a diverse team of responsive, dedicated, innovative professionals supporting USACE, the Army and the Nation's challenging environmental and munitions response missions across the world. We work with our customers to attain solutions that benefit and protect the public and the environment.

At the EM CX, we actively support many programs; the EPA Superfund program, the Army Installation Restoration program, the Formerly Used Defense Sites program, the Military Munitions Response program, the Formerly Utilized Sites Remedial Action program, the Defense and State Memorandum of Agreement program, the HQ USACE Civil Works Compliance program, and many others.

The EM CX provides support to HQ USACE and Corps offices worldwide on complex environmental and munitions issues through independent technical reviews, quality assurance reviews, munitions safety submission reviews, discipline-specific technical support, guidance development, participation on multi-agency panels and advisory committees, development and instruction of PROSPECT and

informal training, and the evaluation of and recommendations on innovative technologies. The EM CX also provides environmental management assistance to HQ USACE for special studies and analyses.

More specific EM CX activities include, but are not limited to, providing technical project planning facilitation, completing environmental lab audits and data review, providing field oversight and trouble shooting during investigation and construction phases, performing Remediation Systems Evaluations, looking at Long-term Monitoring Optimization, performing CERCLA Five-Year reviews, assisting with cost-to-complete estimates and environmental liability, performing Regulatory Compliance Audits, performing Environmental Management Systems reviews, making Value Engineering Studies determinations, distributing Superfund Interagency Agreements to all USACE offices, assisting customers with Potentially Responsibly Party (PRP) investigations, managing the Superfund cost recovery program on behalf of USACE, managing the DSMOA program on behalf of USACE and DoD, serving as the USACE Radiation Safety Officer, managing the USACE Deactivated Nuclear Reactor program, and serving as the EnvST Liaison Officer for HQ USACE. The EM CX also approves all Explosive and Chemical Safety Submissions under the MMRP program and performs accident investigations as well.

The EM CX is not an execution organization. We are a center of expertise whose primary mission is quality assurance, technically supporting Corps offices worldwide in their execution of environmental and munitions response, restoration and compliance projects.

#### **Environmental Health**

- Worker health and safety
- Radioactive site surveys
- Radioactive waste remediation and disposal
- Human health and eco risk assessment
- Risk management and risk communication
- Asbestos and lead abatement

# **Environmental Laws and Regulations**

- Federal and state environmental regulations
- Department of Transportation hazardous materials requirements
- Hazardous waste manifesting

# Engineering

- Treatment and containment technologies
- Remediation system operation and maintenance
- · Well system design and maintenance
- Cost estimating models
- Remediation system and long-term monitoring optimization

### **Environmental Sciences**

- Multi-media environmental sampling
- Analytical methods (field measurements/fixed lab) and data management
- Geophysics
- Statistical applications classic and geostats
- Fate-and-transport, including groundwater and air pathway analysis

### **Program/Project Management**

- Program policy and guidance
- Funds distribution for EPA Superfund work
- Cost recovery
- Contract acquisition and management
- Cost-to-complete (environmental liability)

#### **Military Munitions Responses**

- · Munitions and explosives of concern
- Munitions constituents
- Conventional munitions
- Recovered non-stockpile chemical warfare materiel
- Range clearance operations and readiness support
- Various overseas missions involving munitions such as those in Iraq

The EM CX comprises approximately 70 staff members with expertise in a wide array of areas: environmental compliance, cost engineering, geoenvironmental and process engineering, cost documentation, PRP support, chemistry, geophysics, geology, risk assessment, toxicology, environmental health and safety, munitions safety, health physics, explosive safety, risk management and communications, environmental law and contracting.

The Environmental and Munitions Center of Expertise is a one-stop center for your environmental remediation, military munitions response and compliance needs. The EM CX offers a unique technical service to the Corps, the Army, and other customers, by staying on the cutting edge of the environmental and munitions expertise. The EM CX consists of diversified, experienced, and trained professionals who provide the highest degree of support.

For additional information, please contact the EM CX at 402-697-2556 or go online at: http://www.environmental.usace.army.mil/.